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FILE COVERS 1907 - 16 Jan 2003 VOL 138 ISS 3 FILE LAST UPDATED: 15 Jan 2003 (20030115/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s 13
            1 L3
L4
=> d bib abs
    ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
L4
AN
     2002:575064 CAPLUS
DN
    137:125091
    Preparation of 2-(2,6-dioxo-3-piperidyl)isoindoline-1,3-diones, related
     compounds, and compositions thereof as TNF-.alpha. inhibitors for
     treatment of cancer, inflammatory disorders, heart disease, and related
    disorders
    Robarge, Michael J.; Chen, Roger Shen-Chu; Muller, George W.; Man, Hon-Wah
IN
    Celgene Corporation, USA
PA
SO
    PCT Int. Appl., 224 pp.
    CODEN: PIXXD2
DT
     Patent
    English
T.A
FAN.CNT 1
                     KIND DATE
                                         APPLICATION NO. DATE
    PATENT NO.
                                         -----
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                                        WO 2001-US50401 20011221
    WO 2002059106
                     A1 20020801
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            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
            UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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20001227

PRAI US 2000-258372P P 20011005 US 2001-972487 Α

os MARPAT 137:125091

GΙ

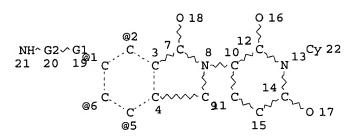
Ι

II

AB Title isoindole-imides I [wherein one of X and Y is CO and the other is CH2 or CO; R1 = H, (cyclo)alkyl, alkenyl, alkynyl, benzyl, aryl, alkylheterocycloalkyl, alkylheteroaryl, COR3, CSR3, CO2R4, alkyl-(NR6)2, alkyl-OR5, alkyl-CO2R5, CONHR3, CSNHR3, CON(R3)2, CSN(R3)2, or alkyl-OCOR5; R2 = H, benzyl, alkyl, alkenyl, or alkynyl; R3 = independently (cyclo) alkyl, alkenyl, alkynyl, benzyl, aryl, alkylheterocycloalkyl, alkylheteroaryl, alkyl-N(R6)2, alkyl-OR5, alkyl-CO2R5, alkyl-OCOR5, or CO2R5; R4 = alkyl, alkenyl, alkynyl, alkyl-OR5, benzyl, aryl, alkylheterocycloalkyl, or alkylheteroaryl; R5 = alkyl, alkenyl, alkynyl, benzyl, aryl, or heteroaryl; R6 = independently H, alkyl, alkenyl, alkynyl, benzyl, (hetero)aryl, or alkyl-CO2R5; or R6 groups may join to form a heterocycloalkyl group; n = 0-1; with the proviso that when n = 0, R1 .noteq. H; or pharmaceutically acceptable salts, hydrates, solvates, clathrates, enantiomers, diastereomers, racemates, or mixts. of stereoisomers thereof] were prepd. for reducing the level of cytokines and their precursors in mammals. In particular, the invention pertains to isoindole-imide compds. that are potent inhibitors of the prodn. of TNF-.alpha. (no data). For example, Me 2-(methoxycarbonyl)-3-nitrobenzoate was hydrogenated with 10% Pd/C (87%). The amine was converted to the nitrile by diazonium salt formation effected by treatment with NaNO3 followed by cyanide formation using classic Sandmeyer procedure (65%). The nitrile was reduced with 10% Pd/Cin MeOH and aq. HCl under hydrogen to afford Me 3-aminomethyl-2-(methoxycarbonyl) benzoate.bul.HCl (90%), which was treated with TEA and then reacted with di-t-Bu dicarbonate to give the carbamate (93%). Cyclization with 3-aminoqlutarimide.bul.HCl using diisopropylethylamine in DMF produced II (82%). The 2-(2,6-dioxo-3-piperidyl)isoindoline-1,3diones and pharmaceutical compns. comprising them are useful for treating or preventing diseases or disorders in mammals, e.g. cancers, such as solid tumors and blood-born tumors; heart disease, such as congestive heart failure; osteoporosis; and genetic, inflammatory, allergic, and autoimmune diseases (no data).

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ll L1 HAS NO ANSWERS L1 STR



VAR G1=2/1/6/5 REP G2=(0-1) CH NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 10 8
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

=> s 11 SAMPLE SEARCH INITIATED 15:21:18 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 55 TO ITERATE

100.0% PROCESSED 55 ITERATIONS 3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 656 TO 1544
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> d scan

L2 3 ANSWERS REGISTRY COPYRIGHT 2003 ACS

IN 4-Pyridinecarboxamide, N-[[2-(2,6-dioxo-3-piperidinyl)-2,3-dihydro-1,3dioxo-1H-isoindol-4-yl]methyl]- (9CI)

MF C20 H16 N4 O5

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d l1 L1 HAS NO ANSWERS L1 ST

VAR G1=2/1/6/5 REP G2=(0-1) CH NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 10 8
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

=> s l1 ful FULL SEARCH INITIATED 15:21:42 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1056 TO ITERATE

100.0% PROCESSED 1056 ITERATIONS 75 ANSWERS SEARCH TIME: 00.00.01

L3 75 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
150.95
151.16

AN 1996:450807 CAPLUS

DN 125:158041

- TI Binding of thalidomide to .alpha.1-acid glycoprotein may be involved in its inhibition of tumor necrosis factor .alpha. production
- AU Turk, Benjamin E.; Jiang, Hongsi; Liu, Jun O.
- CS Center Cancer Research, Department Biology Chemistry, Massachusetts Institute Technology, Cambridge, MA, 02139, USA
- SO Proceedings of the National Academy of Sciences of the United States of America (1996), 93(15), 7552-7556
  CODEN: PNASA6; ISSN: 0027-8424
- PB National Academy of Sciences
- DT Journal
- LA English
- AB In addn. to its well known sedative and teratogenic effects, thalidomide also possesses potent immunomodulatory and antiinflammatory activities, being most effective against leprosy and chronic graft-vs.-host disease. The immunomodulatory activity of thalidomide has been ascribed to the selective inhibition of tumor necrosis factor .alpha. from monocytes. mol. mechanism for the immunomodulatory effect of thalidomide remains To elucidate this mechanism, we synthesized an active photoaffinity label of thalidomide as a probe to identify the mol. target of the drug. Using the probe, we specifically labeled a pair of proteins of 43-45 kDa with high acidity from bovine thymus ext. Purifn. of these proteins and partial peptide sequence detn. revealed them to be .alpha.1-acid glycoprotein (AGP). We show that the binding of thalidomide photoaffinity label to authentic human AGP is competed with both thalidomide and the nonradioactive photoaffinity label at concns. comparable to those required for inhibition of prodn. of tumor necrosis factor .alpha. from human monocytes, suggesting that AGP may be involved in the immunomodulatory activity of thalidomide.
- IT 390367-55-2P 390367-61-0P
  - RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
    - (binding of thalidomide to .alpha.1-acid glycoprotein may be involved in its inhibition of tumor necrosis factor .alpha. prodn.)
- RN 390367-55-2 CAPLUS
- CN Benzenepropanamide, 4-azido-N-[2-[[2-(2,6-dioxo-3-piperidinyl)-2,3-dihydro-1,3-dioxo-1H-isoindol-4-yl]oxy]ethyl]-3-iodo-(9CI) (CA INDEX NAME)

RN 390367-61-0 CAPLUS

CN Benzenepropanamide, 4-azido-N-[2-[[2-(2,6-dioxo-3-piperidinyl)-2,3-dihydro-1,3-dioxo-1H-isoindol-4-yl]oxy]ethyl]-3-(iodo-125I)- (9CI) (CA INDEX NAME)

PAGE 2-A